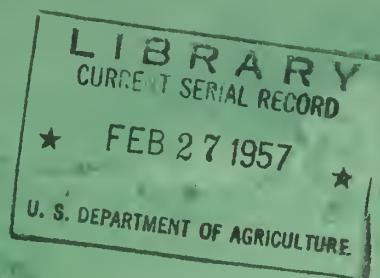


# **Historic, Archive Document**

Do not assume content reflects current scientific knowledge, policies, or practices.



1.96  
R31 Fomo  
Cop. 2



FEDERAL - STATE COOPERATIVE  
SNOW SURVEYS and WATER SUPPLY FORECASTS  
for

**MONTANA & NORTHERN WYOMING**

UNITED STATES DEPARTMENT of AGRICULTURE--SOIL CONSERVATION SERVICE,  
and  
MONTANA AGRICULTURAL EXPERIMENT STATION

In cooperation with the U. S. Forest Service, U. S. Geological Survey,  
National Park Service, U. S. Bureau of Reclamation, State Engineers of  
Montana and Wyoming and other Federal, State and local Organizations.

AS OF  
**FEB. 1, 1957**

UNITED STATES DEPARTMENT OF AGRICULTURE  
SOIL CONSERVATION SERVICE

TO RECIPIENTS OF COOPERATIVE SNOW SURVEY  
AND WATER SUPPLY FORECAST REPORTS

Snow surveys in the west are conducted each year at more than 1200 snow courses. Basin and Province or State snow survey reports summarizing the results of the measurements and forecasts of seasonal runoff and water supply are issued by the Soil Conservation Service, U. S. Department of Agriculture and some of its co-operators; the Water Rights Branch of the British Columbia Department of Lands and Forests; and the California Division of Water Resources.

Copies of the various federal-state cooperative snow survey reports listed below may be secured by writing to:

Head, Water Supply Forecasting Section  
Soil Conservation Service  
209 S. W. 5th Avenue  
Portland 4, Oregon

BASIN REPORTS:

Colorado, Rio Grande,.. Issued monthly February through May by SCS and Colorado and Platte-Arkansas Experiment Station, Fort Collins, Colorado.\*  
River Basins

Columbia River ..... Issued monthly January through May by Soil Conservation Service, Boise, Idaho.\*

Upper Missouri ..... Issued monthly February through May by SCS and Montana Agricultural Experiment Station, Bozeman, Montana.\*  
River Basin

West-Wide Water ..... Issued April 1 by Soil Conservation Service and Co-  
Supply Outlook operators, Portland, Oregon

STATE REPORTS:

Arizona ..... Issued semi-monthly January 15 through April 1 by SCS and Salt River Valley Water Users Association, Phoenix, Arizona.\*

Nevada ..... Issued monthly February through April by SCS and Nevada State Engineer, Reno, Nevada.\*

Oregon ..... Issued monthly January through May by SCS, Portland, Oregon, and Oregon Agricultural Experiment Station.\*

Utah ..... Issued monthly January through May by SCS, Salt Lake City, Utah, and State Engineer of Utah and Utah Agricultural Experiment Station.\*

Washington ..... Issued monthly February through May by SCS, Spokane, Washington, and State Department of Conservation and Development.\*

Wyoming ..... Issued monthly February through May by SCS, Casper, Wyoming, and State Engineer of Wyoming.\*

\*Special reports are issued as needed.

The British Columbia reports are issued February 1 through June 1 and may be secured from Comptroller, Water Rights Branch, Department of Lands and Forests, Parliament Building, Victoria, B. C.

The California reports are issued monthly February 1 through May 1 and may be secured from Division of Water Resources, California Department of Public Works, Sacramento, California.

The annual water supply forecasts of the Weather Bureau are available in monthly bulletins published from January through May. These bulletins entitled, "Water Supply Forecasts for the Western United States" may be obtained from River Forecast Center, Weather Bureau, 712 Federal Office Building, Kansas City 6, Missouri.

FEDERAL - STATE COOPERATIVE  
SNOW SURVEYS and WATER SUPPLY FORECASTS  
for  
MONTANA AND NORTHERN WYOMING  
(Upper Missouri and Upper Columbia River Basins)

Report Prepared by:

A. R. Codd  
Hydraulic Engineer  
Soil Conservation Service

and  
O. W. Monson  
Irrigation Engineer  
Montana Agricultural  
Experiment Station

Soil Conservation Service  
U. S. Department of Agriculture  
and  
Montana Agricultural Experiment Station  
Bozeman, Montana

Report issued by:

Truman C. Anderson  
State Conservationist  
of Montana

M. M. Kelso, Director  
Montana Agricultural  
Experiment Station



WATER SUPPLY OUTLOOK  
as of  
FEBRUARY 1, 1957

## MADISON RIVER:

The seven snow courses measured in and near the headwaters of the Madison River basin showed an average of ten and one-half inches of water content. This figure is 71 per cent of last year's February pack, but 160 per cent of the 1955 water content and 110 per cent of the average amount over the past 15 years. The 1955 April-September stream flow of the Madison was 85 per cent average.

### GALLATIN RIVER:

The 1957 snow pack on the headwaters of the Gallatin River is close to average for February first. Here again the snow pack is 34 per cent less than 1956 and 102 per cent average. This year's pack is considerably greater than the 1955 February pack.

MISSOURI RIVER MAIN STEM:

The February first snow pack on the tributaries to the Missouri from Toston to Fort Benton is 62 per cent of last year and only 87 per cent of average. In the mountains around Helena and to the north the snow pack is below average by 12 per cent. When more courses are measured on March and April a better estimate will be available.

## UPPER YELLOWSTONE RIVER:

The February first 1957 snow pack in Yellowstone Park is 54 per cent of last year, which was particularly heavy. The present snow pack is 98 per cent of the 15-year average. Providing a normal accumulation of snow occurs during the rest of the season, stream flow should be adequate.



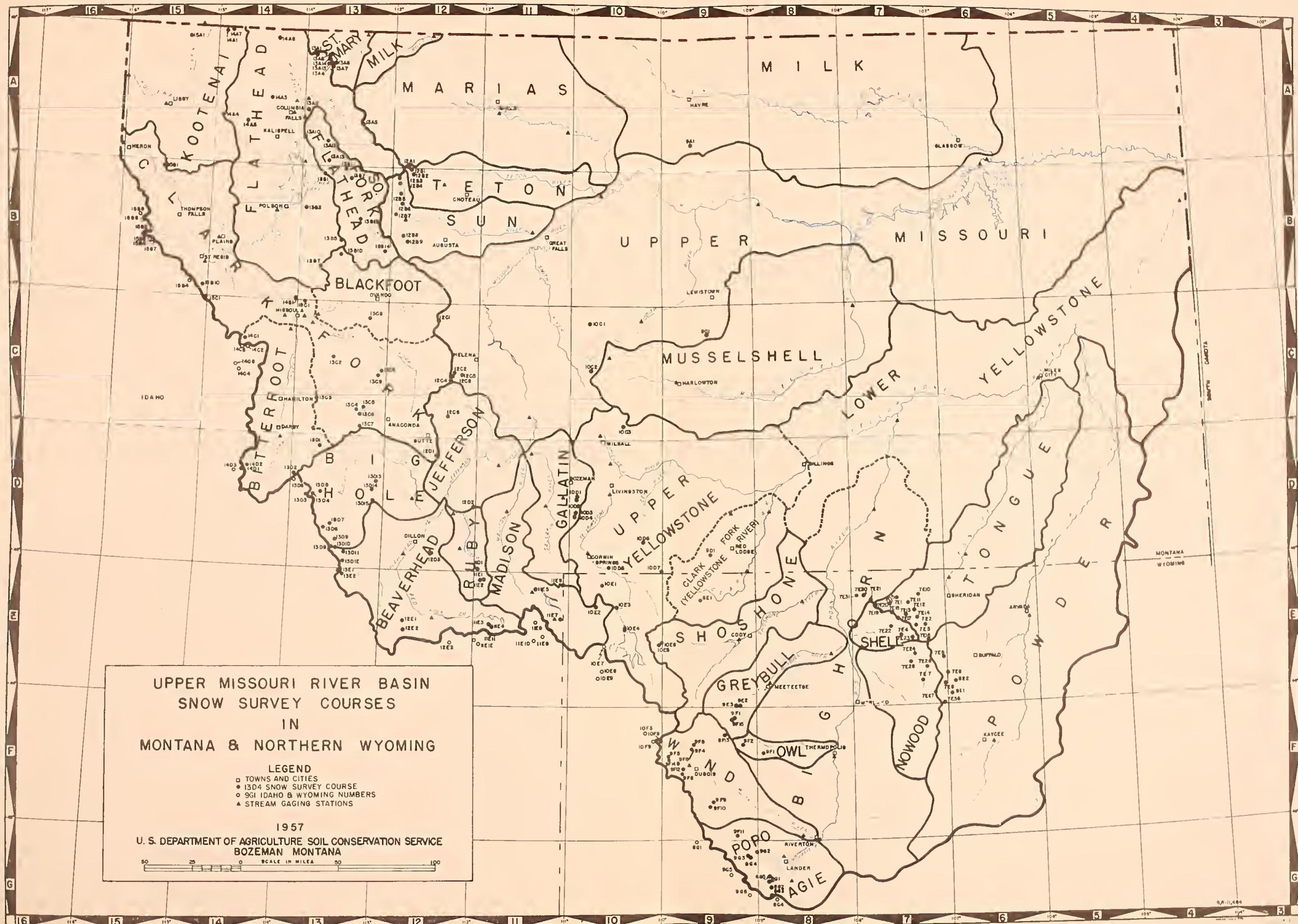
COLUMBIA BASIN

FLATHEAD RIVER:

The February first snow pack is 94 per cent of the average accumulation. Compared to last year, the present pack is 80 per cent as much; however, we have 59 per cent more than 1955. The April-September flow in 1955 was 102 per cent average and the same period flow in 1956 was 125 per cent average. Valley precipitation on this basin during the fall months of September, October and November was 1.54 inches below average, but during December and January, precipitation has been about average.

CLARK FORK RIVER:

In the vicinity of Missoula and above, the snow pack this season is not as large as last season by 64 per cent and is 90 per cent of average. However, there is about 50 per cent more water content than in 1955. Good storms during February and March should produce a normal or better runoff during the April-September period. Fall and winter precipitation in the valley has been below average.



# INDEX TO MONTANA & NORTHERN WYOMING SNOW COURSES

Drainage Basin and Course Name	Montana Number	Location					Record Began	Measuring Dates	Measured By	Drainage Basin and Course Name	Montana Number	Location					Record Began	Measuring Dates	Measured By	Drainage Basin and Course Name	Montana Number	Location					Record Began	Measuring Dates	Measured By															
		Sec.	Lat.	Long.	Range	Sec.						Sec.	Lat.	Long.	Range	Sec.						Sec.	Lat.	Long.	Range	Sec.																		
MISSOURI RIVER DRAINAGE (cont.)																																												
MISSOURI RIVER DRAINAGE (cont.)																																												
(ROCK-BEAVERHEAD)																																												
Lakeview Ridge	11E3	7400	27	11S	2W	1948	3,4,5	10	Camp Senia	9D1	7890	2	83	18E	1937	4	1	Horse Trail Div.	7E16	9200	29	55N	90W	1956	2,3,4,5	1																		
Lakeview Canyon	11E4	6930	26	11S	2W	1948	3,4,5	10	Canyon	10E3	7750	44°-44'	110°-30'	1938	1,2,3,4,5	6		Lake Geneva	7E16	9000	7	52N	88W	1956	2,3,4,5	1																		
Limekiln	12E2	6950	5	15S	9W	1948	3,4	1	Cooke City	10D7	7400	25	98	11E	1937	1,2,3,4,5	6		North Tongue	7E15	8800	17	55N	89W	1956	2,3,4,5	1																	
White Pine Ridge	12E1	8850	18	11S	9W	1948	3,4	1	Grevice Mt.	10D5	8400	22	98	9E	1935	3,4	2	Sibley Lake	7E11	8000	10	55N	88W	1956	2,3,4,5	1																		
(HOUSE MIAIRIE)																																												
Bloody Dick	13D10	7600	12	8S	16W	1948	3,4	1	Independence	10D6	8000	22	75	12E	1941	3,4	1	Sucker Creek	7E12	9000	19	55N	87W	1956	2,3,4,5	1																		
Gold Stone	13D9	8100	11	8S	16W	1948	3,4	1	Lake Camp	10E1	7850	44°-34'	110°-37'	1938	1,2,3,4,5	6		Steamboat Point	7E10	7500	32	56N	87W	1956	2,3,4,5	1																		
Lamhi Pass	13E1	7480	9	10S	15W	1948	3,4	1	Lupine Creek	10E1	7300	44°-34'	110°-37'	1940	1,2,3,4,5	6		Wood Rock O.S.	7E13	8500	3	51N	88W	1956	2,3,4,5	1																		
Terrell Creek	13D12	6650	14	9S	15W	1948	3,4	1	Lodgepole	9E1	8200	32	56N	106W	1940	2,3,4,5	1	(UPPER YELLOWSTONE)																										
Trail Creek	13E2	7090	15	10S	15W	1948	3,4	1	(SHIELDS RIVER)																																			
Selway Junction	13D11	6800	27	8S	15W	1948	3,4	1	Porcupine	10E3	6500	10	4N	10E	1938	3,4	1	(LOWER YELLOWSTONE)																										
(BIG HOLE)																																												
Big Hole Pass	13D13	7400	28	3S	18W	1948	3,4	1	(WIND RIVER) Wyoming																																			
Big Hole Pass-Bo.	13D14	6900	2h	3S	18W	1948	3,4	1	Big, Warm	9F12	8800	36	42N	109W	1955	2,3,4,5	1	(POPO AGIE RIVER) Wyoming																										
East Boundary	13D5	6700	22	3S	17W	1948	3,4	1	Brooke Lake #3	10F8	9200	23	44N	110W	1939	2,3,4,5	1	(POPO AGIE RIVER) Wyoming																										
Obidson Pass	13D2	7100	4	2S	19W	1948	1,2,3,4,5	1,3	Burroughs Creek	9F4	8800	15	43N	107W	1948	2,3,4,5	1	(POPO AGIE RIVER) Wyoming																										
Jahnke Creek	13D8	7340	25	7S	16W	1948	3,4	1	Dinwoodie	9F10	10000	21	39N	105W	1948	2,3,4,5	1	(POPO AGIE RIVER) Wyoming																										
Miner Forks	13D6	7300	2h	6S	17W	1948	3,4	1	Dry Creek	9F9	9500	34	42N	108W	1948	2,3,4,5	1	(POPO AGIE RIVER) Wyoming																										
Miner Lake	13D7	6720	10	6S	16W	1945	3,4,5	1	DuNoir	9F13	9200	23	44N	104W	1956	2,3,4,5	1	(POPO AGIE RIVER) Wyoming																										
(MISS RIVER)																																												
Anderson Mdw.	13D14	7000	18	3S	12W	1948	3,4	1	East Fork	9F1	7500	3	42N	109W	1940																													



COMPARISON OF SNOW COVER WITH THAT OF PREVIOUS YEARS

Summary of snow survey data by tributary Watersheds February 1, 1957

TRIBUTARY BASINS	No. of Courses Averaged	No. Years Used 1938-52	Snow water equivalent 1957 expressed as per cent of		
			1956	1955	15-Yr. Avg. 1938-52
<u>MISSOURI RIVER BASIN IN MONTANA</u>					
<u>MADISON RIVER</u> (Montana)	7	6-15	71	160	110*
<u>GALLATIN RIVER</u>	2	9-15	68	165	102*
<u>MISSOURI MAIN STEM</u>	6	12-15	62	163	87*
<u>UPPER YELLOWSTONE</u> (Montana)	5	9-15	54	95	98*
<u>COLUMBIA RIVER BASIN IN MONTANA</u>					
<u>KOOTENAI RIVER ABOVE LIBBY, MONT.</u>	6	14-15	98	154	107*
<u>FLATHEAD RIVER</u>	8	4-15	79	159	94*
<u>UPPER CLARK FORK</u>	14	4-15	64	153	90*

\*Average includes courses with less than 15 years of record in the 1938-52 period.



MONTANA SNOW SURVEYS - FEBRUARY 1, 1957

MISSOURI BASIN DRAINAGE BASIN AND SNOW COURSE	No.	Elev.	Date of Survey	SNOW COVER MEASUREMENTS					Total Years of Record	
				1957 Snow Depth (In.)	Water Content (In.)	Past Record Water Content				
						1956	1955	15-Year Average 1938-52		
<b>JEFFERSON RIVER</b>										
(Rock-Beaverhead)										
*Kilgore (Big Hole)	11E12	6200	2/1	34	7.2	-	7.0	7.3	20	
Gibbons Pass	13D2	7100	1/31	64	14.8	22.7	7.6	14.8*	17	
*Moose Creek	13D16	6200				15.0	5.9	10.0*	11	
<b>MADISON RIVER</b>										
Hebgen	11E5	6550	1/27	42	10.0	10.6	5.9	7.6	22	
W. Yellowstone	11E7	6700	1/27	38	9.1	12.7	5.3	7.8	19	
21-Mile	11E6	7150	1/28	49	13.0	18.7	7.6	11.1	19	
**Big Springs	11E9	6500	1/29	58	14.5	20.5	9.1	12.8	21	
**Island Park	11E10	3600	1/28	48	10.4	17.8	7.8	10.1	21	
**Valley View	11E8	6500	1/29	44	10.5	13.9	5.7	9.9#	11	
Norris Basin	10E2	7500	2/1	37	6.6	9.9	4.5	7.7#	6	
<b>GALLATIN RIVER</b>										
New World	10D1	6700	2/2	29	5.4	9.1	3.6	7.0#	9	
21-Mile	11E6	7150	1/28	49	13.0	18.7	7.6	11.1	19	
<b>MISSOURI RIVER MAIN STEM</b>										
Chessman Res.	12C5	6200	1/31	10	1.2	4.0	1.3	3.3	21	
Picnic Grounds	13C6	6500	2/1	30	3.8	5.5	1.6	3.5#	12	
Pipestone Pass	12D1	7200	1/29	18	3.2	5.8	1.6	3.0*	17	
Tenmile, Lower	12C2	6250	2/3	25	4.4	6.1	2.5	4.8	21	
Tenmile, Middle	12C3	6800	2/3	31	5.8	9.6	3.6	7.0	22	
Tenmile, Upper	12C4	8000	2/2	35	7.7	11.9	5.4	8.8	22	
(Marias River)										
Marias Pass	13A5	5250	1/30	44	12.2	13.3	6.4	11.8	22	
<b>UPPER YELLOWSTONE</b>										
Canyon	10E3	7750	1/31	45	10.0	16.0	7.8	10.7#	11	
Cooke City	10D7	7400	1/31	28	5.8	8.9	3.4	6.3#	10	
Lake Camp	10E4	7850	1/31	31	6.0	15.0	3.2	6.9#	11	
Lupine	10E1	7300	1/4	36	8.2	13.0	6.1	6.5*	15	
**West Thumb Summit	10E7	7900	1/31	53	12.8	-	8.2	13.2#	9	

\*Average is for less than 15 years of record in the 1938-52 period.

\*\*Adjacent Basin.

#Average for period of record.



MONTANA SNOW SURVEYS - FEBRUARY 1, 1957

MISSOURI BASIN DRAINAGE BASIN AND SNOW COURSE	No.	Elev.	Date of Survey	SNOW COVER MEASUREMENTS					Total Years of Record	
				1957 Snow Depth (In.)	Water Content (In.)	Past Record Water Content		15-Year Average 1938-52		
						1956	1955			
<b>LOWER YELLOWSTONE (Wind River)</b>										
Big Warm	9F12	8800	1/23	27	5.3	10.6	1.7	-	2	
Brooks Lake	10F8	9200	1/22	51	12.6	23.8	9.7	17.2*	16	
Burroughs Creek	9F4	8800	1/24	31	7.3	17.0	4.4	11.4#	8	
Dinwoodie	9F10	10000	1/25	29	6.7	11.8	2.9	8.7#	8	
Dry Creek	9F9	9500	1/25	18	3.5	7.6	1.7	4.6#	8	
DuNoir	9F6	8750	1/23	22	4.5	8.9	1.0	6.7#	15	
Geyser Creek	9F7	8500	1/23	20	4.2	8.9	1.4	5.6#	8	
Little Warm	9F8	9500	1/23	38	9.3	17.9	5.0	12.8#	7	
Sheridan R.S. #2	9F14	7500	1/22	23	4.2	8.3	2.3	-	2	
T-Cross Ranch	9F3	8000	1/24	18	5.2	8.3	2.2	5.1*	16	
Togwotee Pass	10F9	9600	1/22	67	16.9	29.4	11.6	19.2	21	
<b>LOWER YELLOWSTONE (Popo Agie River)</b>										
Blue Ridge	8G2	9500	1/29	28	6.0	15.6	3.8	8.0*	15	
Bruce's Camp	8G5	6500	1/29	5	0.6	0.8	-	-	1	
Hobbs Park	9G3	10000	1/27	40	10.6	19.3	4.5	12.2#	8	
Mosquito Park R.S.	9G4	9500	1/27	21	4.2	8.9	2.0	5.9*	13	
Sawmill Glade	8G1	8500	1/29	21	4.1	8.0	2.2	5.1*	15	
South Pass	8G3	9000	1/29	36	9.0	17.0	5.5	9.7	15	
St. Lawrence R.S.	9F11	9000	1/26	19	3.6	8.9	1.3	5.0*	13	
Trout Creek	9G2	8400	1/27	17	3.6	4.0	0.8	3.4#	8	
<b>LOWER YELLOWSTONE (Owl Creek)</b>										
Beavers Mill	9F2	8900	1/31	17	3.2	7.2	3.8	5.5#	8	
Owl Creek	8F1	8700	1/31	13	2.2	5.8	1.3	4.3#	8	
<b>LOWER YELLOWSTONE (Greybull River)</b>										
Timber Creek #2	9E3	8800	1/29	12	2.0	1.5	-	-	1	
Wood River #2	9F15	8000	1/30	17	2.6	3.0	1.0	-	2	
<b>LOWER YELLOWSTONE (Shoshone River)</b>										
Carter Mountain	-	-	1/28	15	4.0	-	-	-	-	
East Entrance	10E6	7000	1/31	38	8.9	12.8	2.9	8.8#	8	
Sylvan Pass	10E5	7100	1/31	42	10.1	14.7	4.1	10.9*	13	
Tensleep Lake	7E26	9075	2/2	32	6.4	9.4	-	-	1	
Tensleep R. S.	7E7	8300	2/1	26	4.9	6.6	-	-	1	
Five Springs Falls	7E31	7500	1/30	14	2.6	4.6	-	-	1	

\*Average is for less than 15 years of record in the 1938-52 period.

#Average for period of record.



MONTANA SNOW SURVEYS - FEBRUARY 1, 1957

COLUMBIA BASIN DRAINAGE BASIN AND SNOW COURSE	No.	Elev.	Date of Survey	SNOW COVER MEASUREMENTS				Total Years of Record	
				1957 Snow Depth (In.)	Water Content (In.)	Past Record Water Content			
				1956	1955	15-Year Average 1938-52			
<u>KOOTENAI RIVER (above Libby, Montana)</u>									
Fernie	Can.	3500	2/1	31	7.3	8.5	6.1	6.2*	
New Fernie	Can.	4100	2/1	45	10.9	12.9	8.5	11.4*	
Marble Canyon	Can.	5000	1/31	45	13.7	12.7	7.1	11.9*	
Nelson Creek	Can.	3050	1/30	41	10.5	16.5	7.7	9.8*	
Sinclair Pass	Can.	4500	1/31	26	5.9	5.9	2.7	4.4*	
Sullivan Mine	Can.	5100	2/1	38	8.2	15.0	5.2	10.1*	
Gray Creek	Can.	5100	1/28	49	13.7	12.9	9.5	12.7*	
<u>FLATHEAD RIVER</u>									
Basin Creek	13B14	5000	2/2	24	3.4	8.3	3.1	7.9#	
Coyote Hill	13B10	4200	2/1	36	7.4	8.9	4.6	7.2#	
Desert Mountain	13A2	5600	2/1	42	9.1	11.8	5.4	10.4#	
Holbrook	13B13	4530	2/2	31	4.9	8.7	5.8	8.5#	
Marias Pass	13A5	5250	1/30	44	12.2	13.3	6.4	11.8	
Spotted Bear Mt.	13B2	7000	1/30	33	8.5	10.0	-	-	
Trout Lake	13A12	3600	1/29	34	8.0	10.4	8.1	11.5#	
Twin Creeks	13B11	3580	1/29	32	7.3	7.8	5.9	9.1#	
<u>CLARK FORK BASIN</u>									
Coyote Hill	13B10	4200	2/1	36	7.4	8.9	4.6	7.2*	
Chessman Res.	12C5	6200	1/31	10	1.2	4.0	1.3	3.3	
Fish Lake, Idaho	21B4	5000	1/28	82	23.5	28.8	15.8	26.6#	
Intergaard	13C4	6450	3/1	30	3.8	7.4	2.8	5.2#	
Picnic Grounds	12C6	6500	2/1	19	3.3	5.5	1.6	3.5#	
Pipestone Pass	12D1	7200	1/29	18	3.2	5.8	1.6	3.0*	
Southern Cross	13C5	6500	2/1	22	4.0	5.8	2.4	4.1#	
Storm Lake #2	13C7	7780	2/1	36	7.6	12.4	6.2	8.7#	
Stuart Mill	13C6	6500	2/1	23	4.5	5.4	2.2	4.4#	
Tenmile, Lower	12C2	6250	2/3	25	4.4	6.1	2.5	4.8	
Tenmile, Middle	12C3	6800	2/3	31	5.8	9.6	3.6	7.0	
Tenmile, Upper	12C4	8000	2/2	35	7.7	11.9	5.4	8.8	
**Lookout	15B2	5250	1/30	65	19.7	37.5	14.7	22.4	
TV Mountain	14B1	6800	1/31	48	11.2	-	-	-	
Lubrecht Forest #6	13C8	5400	2/4	19	3.5	3.7	1.7	4.9*	
<u>BITTERROOT BASIN</u>									
Gibbons Pass	13D2	7100	1/31	64	14.8	22.7	7.6	14.8*	
								17	

\*Average is for less than 15 years of record in the 1938-52 period.

\*\*Adjacent Basin.

#Average for period of record.



VALLEY PRECIPITATION 1/

Division Averages and Departures  
In Inches

DRAINAGE DIVISIONS	Sept.-Oct.-Nov.		December 1956		January 1957	
	Basin Avg.	Depart- ure 2/	Basin Avg.	Depart- ure	Basin Avg.	Depart- ure 2/
<u>COLUMBIA BASIN</u>						
Upper Columbia, Canada	4.36	-3.72	4.90	+1.05	1.05	+2.70
Kootenai, Canada & U.S.	4.29	-2.55	3.58	+0.58	1.89	+0.19
Flathead	3.74	-1.78	2.11	+0.06	2.54	-1.01
Clark Fork	1.77	-1.54	0.83	-0.19	2.53	-0.74
Pend Oreille	5.72	-3.58	4.14	-0.10	2.35	-0.29

1/ Preliminary analysis by U. S. Weather Bureau from data furnished by Meteorological Service of Canada and U. S. Weather Bureau.

2/ Departure from 15-year (1938-52) drainage division average.



STATUS OF RESERVOIR STORAGE  
 MISSOURI RIVER IN MONTANA  
 February, 1957

BASIN & STREAM	RESERVOIR	USABLE CAPACITY 1000's AF	THOUSAND ACRE FEET IN STORAGE			
			ABOUT FEBRUARY FIRST			15-Yr.Avg. 1938-52
			1957	1956	1955	
<u>MISSOURI RIVER BASIN</u>						
Beaverhead	Lima	84.00	7.30	19.96	11.89	36.75*
Ruby River	Ruby	38.85	-	-	-	-
Madison River	Hebgen Lake	345.00	156.50	185.20	172.90	234.69
Madison River	Ennis Lake	41.00	38.10	32.53	38.01	34.06
Hyalite Creek	Middle Creek	8.03	28.30	3.38	4.71	4.28*
Missouri River	Canyon Ferry	2,043.00	1,589.00	1,526.00	1,224.00	-
Missouri River	Hauser & Helena	62.50	60.76	65.58	59.60	48.91*
Missouri River	Lake Helena	10.45	9.82	11.56	9.42	7.68*
Missouri River	Holter Lake	81.92	73.51	44.24	74.66	53.29
N. Fk. Sun River	Gibson	105.00	38.59	70.69	66.69	59.62
N. Fk. Sun River	Willow Creek	32.30	22.87	26.68	23.96	12.92
N. Fk. Sun River	Pishkun	32.00	16.97	16.58	19.29	15.58
Marias	Tiber	1,316.00	624.30	37.30	-	-
Birch Creek	Swift	30.00	21.18	22.70	26.96	19.50
Dupuyer & Birch	Lake Francis	112.00	89.96	92.36	95.31	72.77
Judith River	Ackley Lake	5.82	-	4.15	4.58	4.20
Missouri River	Ft. Peck	19,000.00	5,397.00	4,729.00	9,344.00	10,078.00
Milk River	Fresno	127.20	78.00	66.60	74.47	56.24
Milk River	Nelson	66.80	53.05	39.91	49.05	28.51
W. Rosebud Cr.	Mystic Lake	20.80	7.89	6.20	5.29	8.01
Red Lodge Cr.	Cooney	27.50	-	-	-	9.64*
Tongue River	Tongue River	73.90	-	-	8.60	9.95*
Swiftcurrent Cr.	Sherburne Lake	66.10	-	-	18.42	18.96
<u>MISSOURI RIVER BASIN - WYOMING</u>						
Shoshone River	Buffalo Bill	440.00	143.9	122.1	139.7	264.5
Wind River	Boysen	408.60	240.6	13.1	315.4	-
Wind River	Pilot Butte	31.6	9.2	14.6	14.7	14.5
Bull Creek	Bull Lake	152.00	76.0	62.3	63.1	63.6*
Belle Fourche	Key Hole	190.00	11.2	19.6	-	-
<u>MISSOURI RIVER BASIN - NORTH DAKOTA</u>						
Heart River	Heart Butte	54.80	44.0	45.0	50.6	56.7*
Heart River	Dickerson	4.30	3.1	2.6	2.5	4.0*
Missouri River	Garrison Lake	13,805.00	602.0	853.0	529.3	-
<u>MISSOURI RIVER BASIN - SOUTH DAKOTA</u>						
Belle Fourche	Belle Fourche	185.00	28.4	78.2	-	-
Cheyenne River	Angostura	160.00	25.4	74.9	-	-
Cheyenne River	Deerfield	15.1	7.6	9.9	-	-
Grand River	Shadehill	84.00	76.6	70.1	-	-
Missouri River	Ft. Randall	2,401.60	563.5	1,453.8	-	-

\*Average is for less than 15 years of record in the 1938-52 period.



STATUS OF RESERVOIR STORAGE  
COLUMBIA RIVER IN MONTANA  
February, 1957

BASIN & STREAM	RESERVOIR	USABLE CAPACITY 1000's AF	THOUSAND ACRE FEET IN STORAGE			
			ABOUT FEBRUARY FIRST	1956	1955	15-Yr.Avg. 1938-52
<u>COLUMBIA RIVER BASIN</u>						
Flint Creek	Georgetown Lk	31.00	21.08	21.69	22.19	22.92
S. Fk.Flathead <u>5/</u>	Hungry Horse	3,500.00	1,983.0	2,595.0	2,489.0	1,307.8*
Flathead River	Flathead Lake	1,791.00	996.7	858.2	788.8	721.7
Flathead River <u>6/</u>	Camas Res.	42.80	29.22	34.34	38.94	17.77*
Flathead River <u>7/</u>	Mission Valley	98.60	27.94	27.18	55.68	36.80*
Jocko Creek	Lower Jocko Lake	7.6	-	Snowbound		

5/ 4-year average

6/ Camas Reservoirs are shown as a sum of (4) small reservoirs on the west side of Flathead Lake located on Dry Creek and Little Bitterroot River.

7/ Mission Valley Reservoirs are shown as a sum of (8) small reservoirs located south and east of Flathead Lake. Both Camas and Mission Valley reservoirs are operated by the Indian Irrigation Service.

\* Average is for less than 15 years of record in the 1938-52 period.





## Federal - State - Private

## COOPERATIVE SNOW SURVEYS

Furnishes the basic data necessary for forecasting water supply for irrigation, domestic and municipal water supply, hydro-electric power generation, navigation, mining and industry

## “WATER IS THE WEST’S GREATEST RESOURCE”